

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method for the removal of mercury from a dilute aqueous solution of sulphuric acid, comprising: characterised in that
feeding an aqueous solution of thiosulphate alkali metal compound is fed into
a an aqueous solution of sulphuric acid with an acid content of 35-45 wt% and an Hg content of at least 1 g/l at a molar ratio, wherein the molar ratio of added thiosulphate to corresponding to a maximum of one time the amount of mercury dissolved in the acid solution is, at maximum, 1.0,
reacting at least some of so that the mercury dissolved in the acid solution
reacts with the thiosulphate, and
precipitating the reacted mercury from that is in the acid solution.
2. (Currently Amended) A method according to claim 1, characterised in
that wherein the mercury is precipitated as mercury sulphide (HgS).
3. (Currently Amended) A method according to claim 1, characterised in
that wherein the aqueous solution of sulphuric acid contains chloride ions, so that
and wherein the mercury is in solution as mercury chloride.

4. (Currently Amended) A method according to claim 3, wherein the characterised in that an aqueous solution of thiosulphate alkali metal compound is fed into a solution of sulphuric acid at a molar ratio of added thiosulphate to that corresponds to a maximum of 0.67 times the amount of mercury dissolved in the acidic solution is, at maximum, 0.67.

5. (Currently Amended) A method according to claim 3, characterised in that in a chloride environment wherein the mercury is recovered as a double salt 2HgS-HgCl_2 .

6. (Currently Amended) A method according to claim 1, characterised in that wherein the thiosulphate alkali metal compound is sodium thiosulphate, $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$.

7. (Currently Amended) A method according to claim 1, further comprising recovering characterised in that the precipitated mercury as a sediment is recovered by filtration.

8. (New) A method according to claim 1, wherein the aqueous solution of sulphuric acid is a scrubbing tower circulation solution.

9. (New) A method according to claim 1, wherein the formation of elemental sulphur does not occur.

10. (New) A method according to claim 8, further comprising removing precipitated mercury from the solution as a scrubbing tower underflow.

11. (New) A method according to claim 8, further comprising removing precipitated mercury from the solution by filtering a scrubbing tower side-stream.